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Teachers' perceptions of intergenerational knowledge flows

Kendra Geeraerts*, Jan Vanhoof, Piet Van den Bossche

Faculty of Social Sciences, Department of Education and Information Sciences, University of Antwerp, Venusstraat 35, 2000 Antwerp, Belgium

HIGHLIGHTS

- Subject knowledge and classroom management skills are seen as supplies of old teachers.
- Innovative teaching methods and ICT skills are seen as supplies of young teachers.
- Perceived teachers' attitudes might affect flows of knowledge demands and supplies.
- A large variety of intergenerational knowledge brokerage activities is found.
- Processes of socialization, externalization, combination, and internalization occur.

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ABSTRACT

In this qualitative study we look at knowledge brokering from an intergenerational teacher perspective. This study aims at describing how teachers perceive colleagues from other generations in terms of knowledge demands and knowledge supplies, and how processes of knowledge-sharing across teachers of different generations take place. Our findings suggest that teachers' perceptions about skills and knowledge of colleagues from other generations can be understood as knowledge demands and supplies and that knowledge flow between knowledge demands and supplies can be affected by perceptions about teachers' attitudes. Furthermore, our findings exemplify the occurrence of intergenerational knowledge brokerage processes within school teams.

1. Introduction

Nowadays, labor markets are characterized by a large outflow of older employees due to the retirement of the so-called Baby Boom generation. On the other hand, active ageing and working longer is necessary to sustain health, welfare and retirement systems (CEDEFOP, 2012; Compton et al., 2014). Therefore, facing the difficulties of potential loss of critical organizational knowledge and experience when employees retire, and taking advantage of the knowledge, skills and competences of older employees, are challenges for many organizations. In order to cope with the growing trend of age diversity in teams, organizations need to support the implementation of new dimensions of knowledge management and conditions that improve intergenerational learning (CEDEFOP, 2012).

This is also true within the context of educational institutions in Flanders (Belgium). Although schools have been collecting and sharing knowledge for many years, it has not been until recently that the potential power of knowledge management for school and class improvement has been discovered (Messelt, 2004). The concept of 'knowledge brokerage' refers to moving knowledge from one place or group of people to another (CHSRF, 2003; Vanhoof & Mahieu, 2013). Whereas older teachers are described by some as workers who have little potential and a low level of performance (Baugh & Sullivan, 2008; Stam, 2009), others argue that the explicit and implicit knowledge of the workers close to retirement is largely underestimated (Duval, 2003; Nonaka, Kohlbacher, & Holden, 2006; Nonaka & Takeuchi, 1995; Vaiman, 2008). Meanwhile, schools are confronted with a large outflow of older employees. It is argued that the ability to retain knowledge of employees close to retirement and to learn intergenerationally becomes a key feature of successful schools (Bender & Fish, 2000; Sutherland, 2005).

Intergenerational knowledge brokerage in school teams

* Corresponding author.
E-mail addresses: kendra.geeraerts@uantwerpen.be (K. Geeraerts), jan.vanhoof@uantwerpen.be (J. Vanhoof), piet.vandenbossche@uantwerpen.be (P. Van den Bossche).

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contains components of knowledge and learning of different generations of teachers. According to Shulman (1987) teachers' knowledge includes content knowledge, general pedagogical knowledge, pedagogical content knowledge, curriculum knowledge, knowledge of learners, knowledge of educational contexts, and knowledge of educational ends. Sternberg and Horvath (1995) looked at the differences between novice and expert teachers regarding their knowledge base. For instance, expert teachers are said to have more knowledge that enables them to solve problems within their domain, as compared to novices. Besides, the expert teacher has knowledge of the organizational context in which teaching takes place and is competent to adapt to certain limitations within their teaching practice (Sternberg & Horvath, 1995). While prior research focused on differences between novices and expert teachers with regard to knowledge and teacher learning (e.g.Grosemans, Boon, Verclairen, Dochy, & Kyndt, 2015; Richter, Kunter, Klusmann, Lüdtke, & Baumert, 2011), the current study aims to contribute to this field by examining knowledge sharing from an intergenerational perspective.

Ropes (2011) defines intergenerational learning as an interactive process between and among people from different generations through which one or both parties learn. Intergenerational knowledge brokerage in school teams facilitates knowledge sharing between knowledge demands (needs) and knowledge supplies (sources) across the younger part of the teaching workforce and the older part of the teaching workforce. In order to describe this knowledge sharing processes, we build our conceptual framework on the work of Nonaka and Takeuchi (1995) that includes socialization, externalization, combination and internalization. Brokerage processes can occur at the workplace or during other learning activities, in other words, on the job and off the job. Three types of workplace learning can be distinguished: (1) formal learning; intentional and taking place in organized training and learning activities, (2) nonformal learning; usually intentional, taking place at the workplace, and (3) informal learning; usually unintentional, as a part of everyday life (Heikkinen, Jokinen, & Tynjälä, 2012; Merriam, Caffarella, & Baumgartner, 2007; Tynjälä, 2008). Nowadays, two opposite processes seem to occur within teachers' professional learning (Tynjälä & Heikkinen, 2011). On one hand, there is a growing trend towards the formalization of informal and nonformal learning. On the other hand, processes of informalization of formal learning take place. Since both processes are intertwined, the three types of learning also converge and the lines between them are fading (Heikkinen et al., 2012, 2015). Tynjälä and Heikkinen (2011) state that teacher learning should be seen as a continuing professional development process that combines formal nonformal and informal learning throughout the career from initial training to retirement. Notwithstanding that many knowledge brokerage activities take place implicitly (Vanhoof & Mahieu, 2013), a variety of methods can be used in order to transfer knowledge from employees of one generation to another one, e.g. face-to-face meetings, communities of practice, knowledge databases, mentoring, coaching, job rotation, storytelling, orientation, after action interviews, interviews, phased retirement, videotaping and training (DeLong, 2004; Liebowitz, 2009; Nonaka et al., 2006; Wamundila, 2008).

Intergenerational relationships support intergenerational learning, reduce barriers and result in a decrease of negative stereotyping (Ropes, 2011; Spannring, 2008). Abrams, Eller, and Bryant (2006) support the idea that stereotype-threat can be decreased by creating more understanding among different generations. Understanding the framework of values, beliefs and work ethics of each generation is needed in order to build relationships that lead to co-operation and job-satisfaction (Ruch, 2005; Swearingen & Liberman, 2004). Moreover, this understanding supports team cohesion and prevents conflict among team members (Lipscomb, 2010). Negative feelings between employees of younger and older generations can have a negative impact on organizational climate (Kunze, Boehm, & Bruch, 2011). Thus, teachers are supposed to have a certain level of understanding about each generation in order to cope with an increase of age diversity within their school team.

Previously, we referred to younger and older employees in terms of generations. As stated by Cekada (2012), not everyone can be placed in one group of a generation. Kuyken (2012) assumes that each generation contains different identities and sub-cultures. Individual differences have been denied in the categorization of generations. Therefore, we consider the conceptualization of generations as complex.

Given that reciprocal understanding among generational cohorts is seen as an important condition for decreasing stereotyping and enhancing collaboration, we are interested in how different generations of teachers look at each other. The way that individuals understand colleagues from other generations might influence how people act at the workplace. Consequently, it might also impact processes of knowledge sharing between teachers from different generations. The purpose of this article is to examine how teachers perceive their colleagues from other generations and how intergenerational knowledge brokerage (IKB) processes take place within school teams. The following set of research questions (RQ) is set forward:

RQ 1. How do teachers perceive colleagues from other generations in terms of knowledge demands and knowledge supplies?

RQ 2. How do intergenerational knowledge brokerage processes take place within school teams?

In the following, we open with a discussion about the conceptualization of a generation. After that, we explain our model to describe IKB processes. Finally, we present the results of a study about the perceptions teachers have about their colleagues of another generation, and the occurrence of IKB processes within school teams.

2. Theoretical framework

2.1. The concept of a 'generation'

Mannheim (1952) suggested that members of a generation have a similar point of view to interpret their environment as a result of mutual social experiences and shared historical events during the formative years of their lifespan.

There is no general acceptance of the labels of generations; many different names have been used as well as a variety in years of birth that indicate the span of one generational cohort. The three major generations currently in the workplace include Baby Boomers; Generation X; and Generation Y (DeLong, 2004; Edge, 2014; Stone-Johnson, 2011). The latter are also known as Millennials, Generation Me, or Digital Natives (Schullery, 2013). Hereby, the conceptualization of generations is mainly based on chronological age and is therefore related to employees' calendar age. Although 'chronological age' is the most dominant way to understand age, some researchers suggest that this approach is not adequate enough to use in a work context (Kooij, de Lange, Jansen, & Dikkers, 2008). According to Sterns and Doverspike (1989) age can also be understood as a multidimensional concept, distinguishing 'functional age', 'psychosocial age', 'organizational age' and 'lifespan age' in addition to 'chronological age'. These different approaches to age are often interrelated (Kooij et al., 2008).

Murray, Toulson, and Legg (2011) argue that there is no clear

picture of the features of generational cohorts that include chronological age and lifespan age. Many articles in the popular press highlight stereotypes of generational cohorts and focus especially on differences between them. However, empirical evidence for these ideas cannot always be found in research literature (Macky, Gardner, & Forsyth, 2008; Murray et al., 2011). While some studies were able to identify differences between the different generational cohorts (e.g. McGuigan, 2010; Smola & Sutton, 2002), other studies have identified more similarities than differences between generational cohorts (Ferres, Travaglione, & Firns, 2003; Wong, Gardiner, Lang, & Coulon, 2008). Some studies conclude that more differences can be found within generational cohorts than between them (e.g., Dencker, Joshi, & Martocchio, 2008; Murray et al., 2011). Nevertheless, these findings do not suggest completely ignoring the portrayals in popular literature, as individuals may possibly base their behaviors on these stereotypes (Manolis & Levin, 1997).

In addition to the importance of not ignoring the perceived stereotypes of employees, we should also not overlook dynamics that occur in work groups. For that reason, we take into account principles of social identity theory (Tajfel & Turner, 1986). This theory asserts that the perceptions and behaviors of individuals towards others are a result of in-group ("us") and out-group ("them") categorizations. It is based on the idea that individuals seek to achieve positive self-esteem and a positive self-image, therefore, members of the in-group favor the in-group at the expense of the out-group. According to Dencker, Joshi, and Martocchio (2007), social identity theory predicts that in-group/out-group dynamics can be caused by similarity of age. This implies that younger teachers will rate teachers of the same age group more positively than their older teachers do. Also, perceptions of older teachers about colleagues from their own generational cohort might be more positive than their perceptions about younger teachers. Hence, young teachers might see older teachers as 'out-group' members, and so they might have less favorable beliefs about them, possibly on the basis of stereotypes.

Intergenerational differences affect how teachers and leaders experience and constitute their work and careers (Edge, 2014). Accordingly, the above described categorizations might affect dynamics of intergenerational knowledge brokerage.

2.2. Intergenerational knowledge brokerage

The process of knowledge sharing is defined by Lin (2007) as the way in which employees share their professional experience, expertise, know-how, and contextual information with colleagues. Knowledge sharing also involves shared understanding in terms of providing access to relevant information, and constructing and using knowledge networks within organizations (Hogel, Parboteeah, & Munson, 2003). van den Hooff and de Ridder (2004) define the process of knowledge sharing as a process where individuals mutually exchange their (implicit and explicit) knowledge and create new knowledge together. In this study, we look at the process of knowledge sharing from an intergenerational teacher perspective. Therefore, we build on the work of Arif, Egbu, Alom, and Khalfan (2009) and Nonaka and Takeuchi (1995) to propose a model to describe the process of IKB, as displayed in Fig. 1. We are aware that Nonaka and Takeuchi's model of knowledge creation has been criticized by some authors (e.g. Bereiter, 2002; Gourlay, 2006; McAdam & McCreedy, 1999) for not taking into account understanding and depth of understanding; and for not comprehensively covering the complexity of knowledge transfer in organizations. However, other authors considered Nonaka's model as promising within educational contexts such as student learning and teacher development (e.g. Tammets, Pata, & Laanpere, 2012, 2013; Tee & Karney, 2010). To our knowledge, this study is the first to explore the application of Nonaka's model within the context of intergenerational teacher learning.

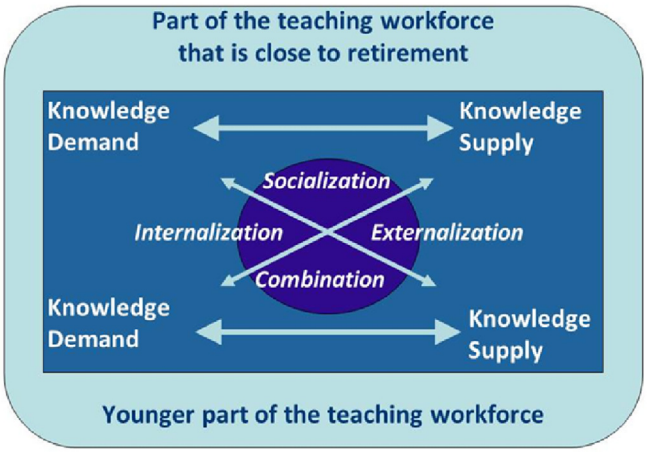

Fig. 1. Intergenerational knowledge brokerage processes.

2.2.1. Knowledge flows

Both the younger part of the teaching workforce and the part of the teaching workforce close to retirement are included in Fig. 1 to represent two generations of teachers. In order to develop towards a lifelong learning culture in an organization, it is important to capture a two-way flow of knowledge (Liebowitz, 2009). This flow of knowledge from young employees to older employees and vice versa has been named by Liebowitz (2009) the 'bidirectional knowledge flow'.

Also, flows between knowledge demands and knowledge supplies are part of IKB processes. Intergenerational knowledge brokerage facilitates the sharing of knowledge between knowledge demands and knowledge supplies across generations. These concepts of knowledge demand and supply have been previously used by Ardichvili, Page, and Wentling (2003). Literature provides a variety of concepts that are closely related to those of knowledge demand and supply. Weggeman (2000) explains that knowledge sharing involves a 'knowledge source' and a 'knowledge receiver'. van den Hooff and de Ridder (2004) state that the process of knowledge sharing contains a knowledge donating and a knowledge collecting component. Whereas 'knowledge donating' refers to communication to others about the content of one's intellectual capital, 'knowledge collecting' refers to the consultation of colleagues in order to make them share their intellectual capital and learn from them. Both components, knowledge donating and knowledge collecting, are interconnected. Knowledge collecting has a positive influence on knowledge donating and can therefore be seen as a condition for knowledge donating. The more knowledge an individual can collect, the more this individual is willing to donate knowledge (van den Hooff & de Ridder, 2004). We interpret knowledge demand as the knowledge needs that employees have in order to reach their professional goals. Knowledge supply refers to the sources of knowledge that are already available or that can be made available within the organization.

The knowledge involved in knowledge brokerage processes needs to be perceived as relevant and needs to respond to actual information demands (Van Petegem & Vanhoof, 2007). Our conceptual framework highlights explicit and implicit modes of knowledge. Explicit knowledge requires another IKB approach than implicit knowledge (Arif et al., 2009; Dankbaar, Oprins, & Andriessen, 2002; Eraut, 2000; Nonaka & Takeuchi, 1995). The

implicit knowledge of individuals forms a basis for organizational knowledge creation. Therefore, the knowledge creation process starts with a focus on implicit knowledge, as an untapped source of knowledge. The transfer of this personal, implicit knowledge to other individuals in the organization is a challenging process since this type of knowledge is gained through experience and is hard to verbalize. The sharing of implicit knowledge between individuals with different backgrounds, perspectives and motivations is crucial in order to start knowledge creation on the organizational level (Nonaka & Takeuchi, 1995). The interaction and integration between explicit and implicit knowledge seems to be an important factor to improve workplace learning and expertise development (Tynjälä, 2008).

2.2.2. Key processes of intergenerational knowledge brokerage

To discern the key processes of IKB, we rely on the four core processes of knowledge creation: socialization, externalization, combination and internalization (Arif et al., 2009; Nonaka & Takeuchi, 1995). These concepts are central to the social reciprocal intergenerational conversion of implicit to explicit knowledge (and vice versa). During the process of *socialization*, individuals share their implicit knowledge with others through discussions, chats, face-to-face meetings, and also by observing and imitating others. This is the process in which knowledge creation begins (Nonaka & Takeuchi, 1995). *Externalization* is a process in which the conversion of implicit knowledge into explicit knowledge occurs through documenting meetings and forums. Hereby, individuals share their mental models and reflect on them. Some authors claim that not all tacit knowledge can be made explicit; an underlying component remains tacit (e.g., Collins, 2001; Tsoukas, 2003). The third process, *combination*, combines explicit knowledge with other explicit knowledge. This process also refers to the collation and compilation of knowledge in the organizational memory, for instance, through the use of databases, online networks, and documentation. Consequently, this archived and saved knowledge is accessible for future use. In the last process, *internalization*, explicit knowledge becomes implicit. This process concerns the retrieval of stored knowledge. After retrieval and use of this previously stored knowledge, new and more up-to-date knowledge can be added (Arif et al., 2009).

2.2.3. The value of intergenerational knowledge brokerage

Intergenerational knowledge brokerage is a valuable process for competence building and knowledge retention between generations (Ropes, 2011). Both older and younger learners can benefit from intergenerational learning opportunities. The outcomes of this process can be complementary or shared. Whereas older learners feel gratification for their contribution to the community and a deeper understanding of the younger generation, the outcomes for younger learners are related to a higher level of self-esteem and self-confidence, and a deeper understanding of older adults (Newman & Hatton-Yeo, 2008). Besides feeling valued, both generations will also feel accepted and respected. Moreover, intergenerational learning will improve knowledge and skills as well as the creation of meaningful intergenerational relationships (Newman & Hatton-Yeo, 2008). This might imply that teachers that engage in intergenerational learning perform better in their jobs.

Besides the advantages of intergenerational learning for individuals, benefits of this learning process can also be found for organizations (Ropes & Ypsilanti, 2012). Intergenerational learning leads to a higher level of social capital (Newman & Hatton-Yeo, 2008). This increased level of social capital has in turn the potential to enhance knowledge flows between workers in an organizational context (Inkpen & Tsang, 2005).

3. Methodology

In the current study, qualitative research methods were used. Data were collected through semi-structured interviews in March and April 2014. Participants of this study were selected by using purposive sampling techniques. Four Flemish secondary education schools participated in this study. In each school, four teachers that are expected to collaborate in a subject team were interviewed, including two teachers under 33 years old and two teachers over 50 years old. In order to capture a broad view, the selected schools varied in different ways. Regarding the school network, both private and public schools were included. Regarding the school structure, both upper and lower secondary education schools were selected which implies that teachers can own a bachelor or master's degree. With regard to the educational programme of the schools, both vocational, technical and general education schools were present in the sample. In every school, the school principal received an informative email about the study. Then, the school principal was asked to provide us with the contact details of teachers that fit within the appropriate age groups of this study. Afterwards, invitation emails for interviews were sent to the teachers, however, participation was voluntary. The subject matters of the teachers were divers and included languages, mathematics, behavioral sciences, economics, religion, physical education, biology, geography, history and ICT. None of the teachers had a foreign background. The youngest teacher was 22 years old, and the oldest 68. Looking at the years of experience within education, the years of experience of teachers from the youngest cohort ranged between one year till eight years of experience within education. For the oldest cohort, this number ranged from 25 to 47 years of experience within education. Within this oldest cohort, three teachers served as a mentor for novice teachers. Both female and male teachers were included. The interviews took approximately 50 min per interviewee and took place during the second semester. Interviews were audiotaped and transcribed verbatim.

The interview data were analyzed thematically using the six-stage approach of Braun and Clarke (2006). Qualitative analysis software Nvivo 10 was used to support the process of moving from inductive to deductive analysis. Hereby, the perceptions of the respondents could be linked to the principles of the theoretical framework. First, the author listened repeatedly to the interview recordings while reading the interview transcripts in order to get familiar with the data. During this process of active reading, the author paid attention to patterns and meanings in the data and took notes of interesting ideas for further coding and analysis. Second, initial codes were generated by coding interesting features of the data across the entire data set. Third, codes were collated into potential themes which are broader than the codes. According to Braun and Clarke (2006), these themes capture important information related to the overall research questions of the study. A theme delineates a certain level of patterned response or meaning within the data, but it depends not necessarily on quantifiable measures (Braun & Clarke, 2006). Fourth, themes were reviewed by checking if they were suitable for the coded extracts and the whole data set. Hereby, a thematic map of the analysis was generated. Fifth, themes were refined and working titles of themes were now modified in names that cover the meanings of the themes. Sixth, the report was produced. Hereby, vivid and convincing extract examples were selected to illustrate the findings and they were linked to the research questions and theoretical framework.

4. Findings

4.1. Teachers' perceptions about colleagues from the same and another generational cohort

In order to answer our first RQ, we start explaining for each theme how the oldest generation is perceived by the youngest participants in this study. After that, we mirror these ideas to the self-perceptions of the oldest participants. Next, we describe for each theme how the youngest generation is perceived by the oldest participants of our study, followed by the self-perceptions of the youngest participants. This linkage between how a generation perceives colleagues from other generation, and how generation members perceive colleagues from their own generational cohort, enables us to discover matches or mismatches in perceptions through which we can reach deeper conclusions.

Three main themes were discussed by our participants. The first theme was related to the knowledge of teachers. This knowledge refers specifically to content knowledge. The second theme was related to the skills of teachers. Hereby, subthemes such as classroom management, teaching methods and ICT were distinguished. A third theme was related to the attitudes of teachers. Personality features, motivation and engagement can be seen as important subthemes.

4.1.1. Perceptions about the knowledge of teachers

In terms of content knowledge, the majority of young teachers were convinced of the fact that their oldest colleagues have a high level of expertise in their subject field. Descriptions such as *'they possess the content of their teaching subject', 'they are real experts in their subject'* and *'they are kind of a walking encyclopedia'* exemplify the subject matter knowledge of older teachers perceived by young participants. Therefore, the knowledge of old teachers about their teaching subject can be seen as a knowledge supply.

The oldest generational cohort is familiar with the content of their subject matter and therefore they are able to provide accurate answers to students' questions. Some participants of the oldest group confirmed this idea:

> *"… also because of our age, … after all these years, you can expand your knowledge. If you keep your ears and eyes opened during your life, you will gather a lot of knowledge"* (Simone, 50+)

Regarding the content knowledge of young teachers, some older participants reported to perceive an insufficient knowledge base of their youngest colleagues:

> *"… sometimes, we have the idea that the knowledge of young teachers is rather poor, they start teaching with insufficient knowledge about their subject field."* (Simone, 50+)

One of the teachers who recognized this lack of knowledge explicitly points at the role of the school principal in this respect:

> *"… we have an excellent school principal. New teachers who don't have sufficient knowledge or who make mistakes related to their subject, they can only keep their teaching position for one year. Our school principal is very accurate with this problem … "* (Daisy, 50+)

Mirroring these ideas to the thoughts of the youngest generation, we noticed that some young participants confirm feelings of uncertainty about themselves and the content of their teaching field. This implies that they cannot always respond to the questions of their students in an appropriate way. Now and then they need to search for additional information because they do not have the right knowledge yet, partly due to their limited work experience.

> *" When preparing my lesson plan, I still need to look up quite many things. Older teachers can more rely on their previous experiences."* (Ben, -33)

whereas subject specific knowledge can be seen as a knowledge supply of older teachers, it can also be understood as a knowledge demand of young teachers within a school team. This theme has the potential to evoke a knowledge stream between both generations of teachers.

4.1.2. Perceptions about the skills of teachers

4.1.2.1. Classroom management. There was a general acceptance among the youngest group of participants about the positive impact of the long-term experience of older colleagues on their classroom management skills. Firstly, some young participants observed that the classroom management of older teachers runs smoothly. This is closely related to some young respondents perceptions that older teachers radiate more respect and authority, as the following quote exemplifies:

> *" From older teachers you never hear that they have problems with their classroom management, since they have a certain level of maturity. What I see is, the more years you are working as a teacher, the more tools you have in order to keep a class group under control."* (Scott, -33)

This classroom discipline results in a quiet and orderly class environment in which student learning can take place more easily.

Secondly, several young participants mentioned that the working experience of their older colleagues leads to a higher level of self-confidence, interconnected with both the teaching subject, dealing with the individual student and the class group dynamics. The majority of young participants highlighted that older teachers react in a more appropriate way to student behavior.

> *"A beautiful thing about the teaching profession is that you can grow and develop yourself as a human being and therefore also as a teacher. At the age of 25 you have a different way of teaching then, for instance, at the age of 40 or 50. You will feel more and more convenient and self-confident about your job, I guess … Because after all those years, you really own your teaching subject."* (Ben, -33)

Many participants of the older age group confirmed these ideas:

> *"I think that the job experience of our older colleagues can certainly be seen as a plus. They are very familiar with the school as well as their subject matter and curriculum. Additionally, most of them have a good relationship with their students … Also, a certain level of authority. Usually, our older colleagues have less problems with classroom management."* (James, 50+)

This implies that classroom management skills can be seen as a possible knowledge supply of older teachers and a knowledge demand of the youngest teachers in a school team.

4.1.2.2. Teaching methods. Some young participants discussed the issue of teaching methods in which they perceived that teachers of the older generation are using rather traditional teaching methods such as lecturing with a handbook and an outmoded chalkboard. However, a young participant emphasized that it is somehow

incorrect to generalize the issue of traditional teaching methods to all teachers older than 50:

> *"it is kind of tricky to put everyone under the same umbrella, because I can also give a few examples of older colleagues with a rather progressive teaching style … … .As compared to younger teachers, older teachers are more sticking to traditional teaching methods."* (David, -33)

When looking at the perceptions of the older participants, some teachers also agreed that their generational counterparts make use of outmoded school materials and rather traditional teaching methods.

> *"Whereas younger teachers generally use teaching materials that are more up-to-date, or for instance digital tools, older teachers make too frequent use of old-fashioned handbooks."* (James, 50+)

Many older participants highlighted creativity and innovation with regard to the teaching methods of younger colleagues. Many of them expressed positive feelings towards the ability of young teachers to come up with new teaching ideas and methods.

> *"Younger teachers create a totally different classroom atmosphere. I even don't want to try that one.. with a lot of noise and rumble.. students that are walking through the classroom etc. And yes, they are able to do it that way. It is something that we admire but I don't feel the need to act the same way."* (John, 50+)

This indicates that innovative teaching methods can be perceived as a knowledge supply of younger teachers. Some older teachers might see these new approaches on teaching as a knowledge demand in order to further develop their teaching methods and keep themselves up-to-date.

4.1.2.3. ICT. Teachers of both generations perceived the existence of a gap between them with regard to ICT skills. There was a general perception among teachers of the youngest generation that the oldest group of teachers in their school team has lower ICT skills. Furthermore, they also think that older colleagues make less use of ICT during their lessons:

> *"On the topic of the use of computers, technology is changing so rapidly that even for us it is hard to keep ourselves up to date! But the youngest generation is very open towards it. I think that teachers at the end of their career might think that they won't waste their time using tablets during their lessons. For our generation, this is different. We are aware of the fact that those ICT tools have many opportunities and we believe that we can reach different goals with it."* (Eve, -33)

The ideas of these young participants about the ICT skills of their oldest colleagues were quite similar to the ideas that older colleagues had about their own generational cohort. The majority of older teachers explained their lack of digital skills by the fact that they did not grow up with a lot of technology and that they had to learn those skills on their own. Furthermore, some older participants stated that the use of ICT is very time consuming for them. This might explain why this older generational cohort is less motivated to make use of ICT.

> *"ICT, that's something people from my generation are struggling with. Of course, we did not grow up with it. Many things that look so obvious for the younger generation are very difficult for us."* (Daisy, 50+)

The older participants expressed very positive feelings towards the well-developed ICT skills of their younger colleagues. They perceived that the young ones frequently use ICT in their teaching and they highly appreciate their fluency in making all kinds of presentations.

> *" A thing which I really appreciate in our novice teachers is their knowledge and skills of new information technology. Not that we don't know anything about this, but still … the ease with which they make use of presentation software, … for me it is extremely time consuming. … … They are so proficient in this field, and that evokes a thankful collaboration. I am very pleased when I say: 'I will elaborate this if you can visualize it'."* (Marge, 50+)

Participants of both generational groups were conscious of their strengths and weaknesses in terms of digital skills. From one perspective, this digitalization is responsible for a gap between those generations. From another perspective, it is a key for collaboration since one needs to help another in improving and developing ICT skills. Another kind of collaboration can also be found in the division of tasks; e.g. teamwork emerges when young teachers visualize the information that older colleagues have already gathered. Consequently, knowledge about ICT can be seen as an obvious knowledge supply of young teachers and a knowledge demand of the oldest generation of teachers.

4.1.3. Perceptions about the attitudes of teachers

Besides perceptions about the knowledge and skills of teachers, respondents in this study also talked during their interview about themes related to attitudes of their colleagues. In particular, the following themes emerged from the interview data: taking things easy, resistance to change, self-confidence, teacher churn, and interaction with students.

4.1.3.1. Taking things easy. Older colleagues were described by some young participants as '*burned out*'. Hereby, they noticed that their oldest colleagues were less likely to provide themselves with a leading role in school activities. Regarding the preparation of lesson plans, older teachers were less inclined to make modifications and updates of their course materials. A young participant explained this by the fact that older teachers want to get some years of benefit of the work already done before.

> *"I have noticed that the older generation of teachers feel that they have already done so many things for so many years, and that new colleagues should now take turns to organize things at school. Older teachers will just participate."* (Scott, -33)

Nevertheless, not all participants of the younger generations were pessimistic about this attitude of taking it easy and slowing down by older colleagues. Some young participants have nuanced this perception and stated that there are still older teachers that commit themselves for activities at school. They perceived that colleagues close to retirement want to finish their career in a beautiful way.

Half of the participants older than 50 observed that some of their generational counterparts are exhausted and slowing down, although they did not want to put everyone under the same umbrella.

> *"I think that colleagues of my generation are all slowing down. It is a long career …"* (Daisy, 50+)

"We cannot deny that some of our older teachers are just too tired. They feel that they have seen it all before and they are done. " (Marge, 50+)

4.1.3.2. Resistance to change. The majority of young participants believed that older teachers often stick to their own approach. This oldest generational group of colleagues was also perceived as more critical and skeptical towards changes and innovations. A reason can be found in the fact that older teachers can compare with previous experiences in their teaching occupation. An attempt to innovate can evoke resistance of older colleagues because of witnessing failed innovations in previous stages of their career.

"I feel that older teachers are sticking more to their own style and methods. I also realize that the last mile is the longest one for our oldest colleagues.. and as it is the same every year, they don't put in much effort in, e.g. *preparation of exams."* (Sarah, -33)

Half of the older participants confirmed the idea that teachers over the age of 50 are less likely to change their teaching traditions. One participant gave a similar reason as the youngest teacher, that is, a rather conservative attitude of older teachers is caused by witnessing failures in previous stages of the career.

Some participants older than 50 expressed positive feelings towards the high level of enthusiasm of their youngest colleagues. This enthusiasm is also related to 'eager to learn', 'highly motivated to experiment with things', as perceived by the older participants.

"Enthusiasm is typical for beginning teachers." (Marge, 50+)

Some participants of the youngest generation have similar optimistic perceptions about the enthusiasm of their equals.

"Typical for young teachers is that they like to try out new things." (Sarah, -33)

Another attitude of older teachers, as perceived by the young ones, is the attitude of 'complaining'. Two reasons for this were given by the youngest group of participants. First of all, complaining occurs when young teachers are not following the rules for students and for themselves. Secondly, the youngest generation believes that the oldest teachers do have difficulties in dealing with today's youth mentality.

Participants of the oldest generation described their attitude of complaining more in terms of 'being annoyed' about the fact that the core business of their profession, which is supposed to be teaching, is getting less attention due to an overload of administrative tasks and other activities within the school.

"Some older colleagues feel more like 'let me just do my teaching job, don't bother me with all those extra activities, I just want to teach my students!' This is something that we perceive less in our young colleagues." (Marge, 50+)

4.1.3.3. Self-confidence. The positive impact of a high level of self-confidence on classroom management skills has been discussed already in the section 'perceptions about the skills of teachers'. In this section related to the attitudes of teachers, we refer to self-confidence more as a general attitude. Half of the young participants expressed their impression that older teachers were more calm, relaxed and confident. Whereas young participants explained this calm attitude more by experience with the teaching subject, older participants explained it more by the fact that they can relativize more. One older participant mentioned that employment security due to permanent positions makes older teachers feel more calm and therefore more self-confident.

4.1.3.4. Teacher churn. Several older participants experienced that their youngest colleagues are more likely to leave the teaching profession at the beginning of their career. One reason is named by some older teachers as 'job hopping', where teachers are dropping out to pursue careers in other settings outside education. This attitude is enforced by the high workload, lack of perseverance, and practice shock. On the other hand, older participants noted that young teachers like to enjoy life, keeping the high retirement age in mind, and decide to go travelling and seeing the world.

"New teachers face difficulties … several of them drop out at the beginning of the school year, after the first week, or after the first month. Especially the workload makes them feel helpless." (Simone, 50+)

"I think that beginning teachers lack perseverance, that's quite obvious nowadays. After half a year, they feel that they had underestimated the job. It is tougher than what they expected, and then it's hard to get them motivated … …. Some will search for other professions. Every year, some young teachers quit their job and decide to travel" (Daisy, 50+)

The youngest group of participants also perceived their own generation as a cohort that is dropping out more easily. In this regard, they referred rather to feelings of employment uncertainty and underestimation of workload in their teaching job.

"In my opinion, many beginning teachers underestimate the teaching profession. I had exactly the same feeling at the beginning of my career. It's a struggle of the fittest in the beginning, and you have to deal with that." (Scott, -33)

"It can be frustrating, because, year after year you cannot be sure of your teaching position on the 1st of September … therefore, I can really understand that many young teachers are leaving the teaching profession" (Ben, -33)

4.1.3.5. Interaction with students. Many older participants shared the perception that the distance between young teachers and their students is too close. They experienced that young teachers want to become friends with their students in order to give a popular and likeable impression. According to participants older than 50, this attitude of many young teachers is a pitfall, since it will lead to disciplinary loss.

"Young teachers usually make the mistake that they want to be popular with their students." (John, 50+)

Some young participants also mentioned having a close connection with students, whereby the boundary between teacher and student is quite small. They permit close interaction with students and prefer to engage in dialogue, and also in conflict situations. This way of interaction with students is perceived by some young participants as a generation gap between old and young teachers.

"I want to make students aware of their behavior, so that they understand what they did wrong and why I, as a teacher, am not pleased with his or her actions. I want to engage in dialogue, while older teachers are more likely to refuse this. They give a note, followed by a sanction, and that's the end of the story!" (Scott, -33)

As reported earlier, knowledge demands and knowledge supplies have been clearly recognized in the perceptions about knowledge and skills of teachers. Although these knowledge demands and supplies did not clearly occur within the sub-themes of perceived attitudes, they might have the potential to influence the stream of knowledge between knowledge demands and knowledge supplies across generations of teachers in a supportive or constraining way. For instance, when young teachers believe that their oldest colleagues are not willing to change their teaching methods, are conservative and are sticking to their own approach, they might feel less encouraged to share their knowledge about new and innovative teaching methods. Another example is related to the drop-out of young teachers. When old teachers experience their youngest colleagues as 'job-hoppers', it might make them less willing to share their subject specific knowledge or classroom management skills with their younger counterparts. High rates of teacher churn may therefore affect knowledge-sharing behaviour. This implies that the perceptions about the attitudes of colleagues might somehow restrict the knowledge flow between knowledge demands and knowledge supplies across different generations of teachers.

Both generational cohorts were aware of the fact that they can learn from each other. In the light of intergenerational knowledge brokerage processes this is a positive finding.

> *"I think we could move a big step forward if we could combine the knowledge of our older colleagues with the teaching methods of our youngest colleagues."* (David, -33)

4.2. Intergenerational knowledge brokerage processes within school teams

4.2.1. Opportunities for IKB processes

Our results confirm that intergenerational knowledge sharing can take place in a variety of activities. Examples of these activities given by our respondents are: subject team meetings, informal moments, classroom visitations, mentoring sessions, digital learning platforms, training sessions, pedagogical seminars, collaboration with colleagues. Consequently, these activities are opportunities for IKB processes to occur.

As described in the theoretical framework, the processes of socialization, externalization, combination and internalization play an important role in IKB. The afore-mentioned activities contain usually more than one process of IKB, as some overlap can occur. In the following section, we give examples of how these processes take place.

4.2.1.1. Socialization. This process occurs prominently when teachers chat with each other, for instance, in the coffee room or just in the corridor. Knowledge sharing happens spontaneously, sometimes people are just talking without realising that they are actually sharing knowledge. This process also occurs when people watch their colleagues when doing their job. For instance, a young teacher mentioned that he learns from his older colleagues when he just sees other colleagues dealing with student behaviour. This socialization process can be mainly found in informal meetings, subject team meetings, collaboration with colleagues, mentoring, or pedagogical seminars.

> *"Just by chatting with each other and having a drink together and doing things together … That way, a lot of knowledge is transferred spontaneously. You are not explicitly saying 'now I am going to explain something to you', but you're just talking."* (Daisy, 50+)

> *"… just by seeing each other working, you can learn a lot."* (Scott, -33)

In this process, some teachers mentioned that the personality features and a personal match or positive relationship between teachers are of major importance. More specifically, teachers need to have an open attitude towards each other and the value of teambuilding activities may not be underestimated.

4.2.1.2. Externalisation. In the phase of externalization, tacit knowledge of the earlier socialization phase is made explicit (Nonaka & Takeuchi, 1995). This conversion of implicit to explicit knowledge can be obtained by language or documents. When language is the facilitator of knowledge sharing, active questioning is a way to achieve externalised knowledge of colleagues. According to many of our participants, teachers should not hesitate to ask specific questions about their colleagues' knowledge, specifically across generations. Hereby, a certain level of assertiveness is needed.

> *" Of course I already asked an older colleague things like: 'this topic, how do you deal with that? And how do you evaluate that part of the exam? … and then I always get an answer"* (Ben, -33)

> *"When the older teachers are preparing a document on their computer in the teacher room, and, for instance, they have troubles creating a table, .. then it happens that they ask me: ooh could you have a look at it? How can I fix this? …"* (Lily, -33)

Also, in mentoring activities, mentors externalise their knowledge in documents or during mentoring sessions. During these sessions, mentors give information about educational activities that might be school specific. For instance, how are parental evenings organized? How does the evaluation system work? What is the vision of the school in terms of evaluation? Most of the young teachers affirmed that their mentor was a teacher from the oldest generational cohort.

> *"We organise guidance for new teachers. We organise meetings and sessions about problems, deliberations, reports, grading, parent meetings, classroom management, …"* (Simone, 50+)

> *"My mentor recently visited my classroom in order to form an opinion about how I am doing. After that we also had supervision, we bring a case in which we discuss a problem or experience in group."* (Sarah, -33)

Many examples of externalization can be found in the use of the digital learning environment. Within this, a big variety of documents can be uploaded, shared and used by colleagues. The process of externalization focuses specifically on verbalizing tacit knowledge and documenting it, after which this explicit knowledge can be uploaded.

> *"When we attend a training session, we write a short report about it. Then, we publish it on our digital learning platform so that members of our subject team can have a look at it. The goal is to have a look at each other's reports. Also by reporting it, you can have some reflections on it, and you share it with colleagues."* (Diana, 50+)

In this process of externalization, school principals and subject teams play an important role in the conversion of implicit knowledge into explicit forms. A young teacher mentioned that school principals might ask or even oblige teachers to upload information

on a digital learning platform. Otherwise, it can be an agreement among teachers that collaborate in a subject team, as described by an older teacher.

The fact that knowledge is made explicit does not mean that it is eventually also retrieved and used by colleagues. Therefore, activities related to the next process of combination are important.

4.2.1.3. Combination. In this process, teachers gather explicit knowledge from their colleagues and rework it, by including their own explicit knowledge. Consequently, different explicit knowledge bases are used to develop new explicit knowledge. Thus, information and communication technology can facilitate the process of combination. Teachers of both age groups specifically referred to the use of digital learning platforms as a useful tool for intergenerational learning within their subject teams.

> *"We do have a community for French, it is an online platform where you can find lots of documents such as study guidelines, tests, etc. With this I have at least an idea about what some documents should look like. This was a really difficult thing for me in the beginning, like 'how can I create a good test?' "* (Sarah, -33)

> *"Someone creates something new and then sends it to colleagues, and says: 'what do you think of it?"* (James, 50+)

This process can also occur without technology, simply by teachers of different generations sitting together while explicitly sharing their knowledge about a subject in order to acquire new explicit knowledge.

> *"For instance, with the use of tablets, colleagues get together and search for apps and other functions together. During these events you can easily share your knowledge."* (Lily, -33)

Subject team meetings might be appropriate activities for stimulating this process of combination, but the quality of the subject team or the steering role of the head of this subject team might affect the content and outcomes of this process, as exemplified by an older teacher:

> *"If you are part of a good subject team, you can learn a lot from each other. I suppose that the head of this subject team will stimulate this learning. Otherwise it will be a tough process. In my opinion, everything stands or falls with your subject team.."* (Marge, 50+)

4.2.1.4. Internalisation. During the process of internalization, explicit knowledge becomes a part of teachers' practice, whereby knowledge becomes routinized and turns into a tacit mode. Through applying explicit knowledge, teachers internalise this knowledge. Learning by doing is an essential action within this process. Opportunities can be found in, e.g., workshops, mentoring sessions and classroom visitations. Teachers can reflect on their performance and put their assumptions into practice.

> *" This is really something I had to learn … In my lessons, pupils always had to be completely silent … but through visiting lessons as a mentor, I could see that other ways were working too. It made me understand that a noisy lesson doesn't always mean that it is a bad lesson and that student learning does not take place … …. There are other things as well that I noticed by attending mentees' lessons and that incited me to act the same way."* (Daisy, 50+)

> *"This especially occurs when an older colleague and a young one have a parallel class, for instance, when exam files need to be created, I often hear them say 'I reached this chapter, and I am now going to do this test' So, this is something that they discuss with each other and it permits them to learn a lot from one another, because the old teacher might say 'last year I reached a further point in the course material' or 'I got less far'. Hereby, teachers learn somehow how to plan."* (Maria, 50+)

Typically, classroom visitations take place within mentoring systems. Usually, an older teacher visits the lesson of a young or beginning teacher. While the young teacher gets tips and tricks that can be applied in further practices, mentor teachers can also learn from their youngest counterparts when witnessing good practices that can be applied in their own practices as well. Almost all interviewed teachers in this study confirmed that visiting the class of a colleague from another generation could be a valuable method in order to improve their own teaching practices.

> *"I think it would be very interesting to attend a lesson of an older colleague. I would learn a lot from that. If I could attend the geography lesson of my colleague, I think I would react like 'ooh yes, of course, if I do it that way' … or 'oh yes, that's interesting'"* (Kate, -33)

In practice, this method is not self-evident since participants in this study expressed feelings such as *'it is a threshold', 'it is awkward', 'you feel observed', 'you feel evaluated', 'I would feel like a controller', 'teachers are afraid of failure'*. These negative feelings mean that classroom visitations, which were almost unanimously perceived as a valuable method for intergenerational learning, are not put into practice.

5. Discussion and conclusion

In the present study we have focused on the question of how teachers perceive their colleagues from other generations and how IKB processes take place within school teams. Given the rather poor conceptualization of this research domain so far we adopted an explorative approach.

As regards the perceptions of teachers about colleagues of other generations, we distinguished three major themes: knowledge, skills, and attitudes of teachers. According to young participants in this study, the knowledge supplies of older teachers are mainly related to their high level of content knowledge and their classroom management skills. The knowledge supplies of young teachers, perceived by the oldest participants in this study, are related to their creative and innovative teaching methods, and their well-developed ICT skills. When associating our findings of knowledge supplies and demands with Shulmans' categorization, we mainly recognize content knowledge, general pedagogical knowledge and pedagogical content knowledge. This suggests that those forms of knowledge play the biggest role in teachers' daily practices. The occurrence of flows, in which knowledge supplies and knowledge demands of teachers across different generations interact, might be affected by the perceptions about teachers' attitudes. Previous research has shown that generational cohorts differ in their attitudes towards work (Edge, 2014). Whereas the attitudes of older teachers were perceived by young ones as taking things easy, complaining, conservative, and self-confident; attitudes of young teachers were perceived by old participants as dropping out easily, enthusiastic, and in close interaction with students. Accordingly, these perceptions constrain or support the intergenerational flow of knowledge demands and supplies. Despite the fact that many young teachers perceived some of their oldest colleagues as slowing down and unmotivated, they are still convinced of the fact that they can learn a lot from their oldest colleagues. Both generational

cohorts expressed positive feelings towards intergenerational learning. Further research can investigate the variation in motivation for intergenerational learning in different generational teacher groups.

To answer the question about how IKB processes take place within school teams, our findings are consistent with those of previous studies (e.g., DeLong, 2004; Liebowitz, 2009). We found a wide variety of examples of IKB activities including subject team meetings, informal moments, classroom visitations, mentoring sessions, digital learning platforms, training sessions, pedagogical seminars, and collaboration with colleagues. The three types of learning: formal, informal and nonformal learning, can be recognized in these examples. Consequently, these activities offer opportunities for IKB processes to occur.

Regarding the four key IKB processes: socialization, externalization, combination, and internalization (Nonaka & Takeuchi, 1995), we found that the first three processes were prominently available in our data. However, the last process, internalization, was mostly absent. Only few examples were given by teachers about which knowledge they could internalise after knowledge-sharing with colleagues from another generational cohort. This finding might suggest that teachers share their knowledge but that they do not always reach the level of implementation of their newly created knowledge in their own teaching practice. Another explanation can be that participants in this study were not aware of their new routines and therefore did not mention examples about the process of internalization. Further research is needed to elicit this issue and can specifically focus on the phase of internalization in order to identify why this phase is rather scarce.

The above described IKB processes emphasize the socio-constructive nature of intergenerational learning. It is assumed that teacher knowledge is created and constructed through dialogical processes between younger and older teachers. For this reason, the initial used metaphor of knowledge brokerage, referred to as 'moving knowledge from one place or group to another' (Vanhoof & Mahieu, 2013), should be interpreted in a more comprehensive way by taking a social constructivist point of view.

We also found that many IKB activities are not intentionally aiming at knowledge-sharing between young and old teachers, with the exception of mentoring practices. The fact that knowledge sharing can be considered as an intergenerational activity is often an accidental consequence of the composition of the subject team. Further research might therefore focus on how IKB processes are intentionally and/or unintentionally stimulated by the school principal.

In this light, future work needs to look more deeply into influencing factors of the earlier described IKB processes. Four categories of influencing factors can be recognized which affect intergenerational learning and that therefore can explain differences between generational approaches in different contexts. The individual level refers to the personality features of teachers; for instance, their openness and assertiveness. The team level is more related to trust, social interactions and team cohesion between team members. Specifically, subject teams, and how this team is managed by a head teacher, might play a prominent role. Also, the length of relationships and hierarchical position within the school might affect IKB. The third level is the school level, in which the school principal can be seen as a facilitator of IKB processes. The extent to which school principals intentionally integrate 'age diversity' or 'intergenerational knowledge-sharing' in their policies, as well as the created school culture and policy-making capacities can be part of this level. In addition to these three levels, we should not overlook the importance of available resources like physical space, time, and information and communication technology, including digital learning environments. Further studies can concentrate on these factors and how they influence intergenerational knowledge flow in school teams.

As stated in the theoretical framework, we expected to see social identity theory (Tajfel & Turner, 1986) at play, meaning that teachers value their own generational cohort more highly than their colleagues of another generational cohort. We conclude that this in/out group dynamics did not seem to play a prominent role in our data. When mirroring the perceptions of teachers about a generational cohort to the self-perceptions of this cohort, we found that these perceptions are somehow similar. This means that teachers have a common idea about each other and that they can draw honest conclusions about their own generational cohort.

To conclude, we believe that intergenerational learning is an important focus within school teams. Shedding light on teachers of different generations has an added value because of the different knowledge and skills these cohorts possess, as explained by our responses to RQ1. Other reasons can be found in demographic changes, but also in change and innovation in educational institutions.

5.1. Implications of the study

Within schools, teachers need to perceive the development of a knowledge sharing attitude as a part of their continuous professional development. This goes along with the importance of making their knowledge explicit in such a way that knowledge of teachers of different generations can be combined. Efforts are needed to stimulate teachers' reflection on knowledge demands en supplies in order to create awareness of where knowledge can be found. Paying attention to the entire teaching team as an intergenerational learning community is essential in this regard. Teachers might feel more encouraged to participate in intergenerational learning when there is an optimal mix between knowledge demands and supplies. School principals can play a role in supporting both formal and informal opportunities for intergenerational learning. Besides creating face-to-face interactions, digital learning platforms can stimulate knowledge sharing processes particularly within the phase of externalization and combination of knowledge. As knowledge about ICT appeared to be a weakness of older teachers, school principals should be aware of this potential difficulty. The challenge will be to further develop the (digital) learning environment in a way that it facilitates knowledge sharing for the entire school team. Intergenerational learning can also be incorporated within teacher education programmes. As student teachers are mostly young teachers, they can also be seen as a source of knowledge for the school during internships. The implications for teacher education lie in revealing the importance of facilitating interactions between student teachers and mentor teachers of different generations. Teacher educators might take into account that mentor teachers of different ages contain different bases of knowledge and skills. Therefore, student teachers might be combined during their internship with a mentor teacher who is in a way complementary in order to optimise learning and knowledge sharing. Another challenge for teacher education lies in creating a knowledge sharing attitude by their students so that IKB processes maintain in their further professional development.

5.2. Limitations of the study

Like every study, this study also has some limitations that need to be considered in evaluating the findings. A limitation of this study is related to the selected respondents. Only teachers of the youngest and the oldest cohort were included, but the middle group might also have an interesting view on intergenerational learning since they might collaborate with both elder and younger

colleagues. Regarding the subject matter, teachers of different subjects were included in order to capture a broad view. Further research might look more deeply in knowledge sharing of teachers within a particular subject team. Another limitation of this study is related to the definition of generational cohorts that we used, based on chronological age only. Further research on this topic might consider to use a more comprehensive definition, taking into account such characteristics as work tenure, life span and psychological age in order to improve generalizability (Sterns & Doverspike, 1989). In Flanders, teachers of different ages might have permanent or temporary positions within the school, this might also influence their knowledge sharing behaviour. Also, the concept of a generation should be elaborated further. New teachers are not always young teachers; the increasing number of Flemish teachers that enter the teaching profession at a later stage in their working life makes the concept of a generation within school teams even more complex. Hereby, we suggest to taking into account the years of experience within the teaching job. The national context might be a challenge for the broader international application of this study (Edge, 2014). As generational cohorts are shaped by mutual social experiences and shared historical events (Mannheim, 1952), they also involve, for instance, educational reforms which are inextricably linked to national contexts. Although the current study was done in Flanders, it is relevant for an international audience since demographic changes are a global trend and continuous professional development is seen as an objective in many national policies and educational reforms.

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